this circumstance alone, appear to be different from that contended by Brachet and others. 5th. If the office assigned to the par vagum by these physiologists, in reference to the function of respiration, were correct, we cannot account for the continuance of the latter after the complete division, with loss of substance, of that nerve. Respiration should stop instantly, as the animal could no longer experience the sensation of the want of a renewal of air in the lungs.

To these remarks we must beg leave to add, that Dr. P. has not rendered complete justice to M. Brachet, omitting, as he does, to state fully the views of that eminent writer respecting the functions of the var vagum. In his *Recherches Expérimentales sur les Fonctions du Système Nerveuse Ganglionaire*, a work of which we hope to be able to furnish a review in a future number, Mr. B. contends for the double origin of that nerve, and admits in it a double function—of sensation and motion. This Dr. Pancoast should have known and recorded.

We are glad to find that Dr. P. has taken no notice of Magendie's opinions on the sympathetic, or of our countryman, Professor Miller's publication on the same subject. The former of these writers, in pretending to raise some doubts as to the nervous nature of the ganglionic system, has been guilty of an absurdity; while the other has merely repeated, with high and undisguised pretensions to originality, what others had said long before, and much better than himself.

This article has already extended so much beyond its extended limits, that we have no room left for noticing several interesting and creditable notes introduced in the chapter on the pathology of the sympathetic nerve. We must mention, however, that we were surprised to find that no allusion is made by Dr. Pancoast to either Mr. Swan's remarks and experiments on constitutional irritation, and his dissections in tetanus; or to our countryman, Dr. Cartwright's dissections in yellow fever; in all which, the ganglia were discovered to be in a morbid condition. In terminating this notice we cannot abstain from once more expressing our thanks to Dr. Pancoast for the present translation, and for the interesting matter he has himself contributed. We sincerely hope he will continue to enrich our medical literature with English versions of standard foreign books, as well as with the fruits of his own observations and reflexions, conditioned by the occasional criticisms of independent reviewers, whose duty it is as much to point out errors and omissions with the view to excite emulation and promote future research and improvement, as to indicate in terms of approbation the services rendered to the cause of science by the writers whose works they are called upon to examine.

R. La R.

XV. *Principles of Lithotrity, or a Treatise on the Art of Extracting the Stone without Incision.* By Baron Heurteloup, Doctor of the faculty of Medicine of Paris. London, 1831. pp. 438. 8vo. plates 5.

Notwithstanding some modest prefatory remarks, this work comes forth evidently, with the pretensions of a complete treatise on the subject of lithotrity. Seven years of study and intense labour have been devoted to the perfection of the instruments, and to their application in individual cases. It has the advantage also of having been preceded by so many publications, on this new operation for removing urinary calculi, that justly, much may be anticipated. The preface, as usual, contains much of *defence*, and *attack*—of *denials* and *assertions*—and is characterized by the jealousies so easily excited among the members of the *learned* professions.

We cannot refrain from extracting one paragraph from the preface, and addressing it to *American surgeons.*

> "To read some of the books which have been written on this new art, and see their poverty on the head of scientific action, and still more as regards the precepts which ought to be followed, one would be tempted to believe, that this art consists only in the introduction of instruments into inert and insensible bladders, and then to charge the stone indifferently, by gentle or forcible manœuvres and destroy it with more or less expenditure of time, as may happen.*** They, (operators,) imagined no doubt that the organ in which they operated would accommodate itself to all the slowness of their operation and all the defects of their instruments; they have in fine, a most unfortunate idea of lithotrity, when, without preliminary examination of the organ, or previous knowledge of the form and volume of the stone, still less of the difficulties to which this form and size may give rise, without even giving to this body an appropriate position, they introduce without law or reason, and often with violence, an instrument, make the soft organ in which they operate yield to their hand, armed with a steel inflexible rod, and thus manage to seize the stone, which but too often is so little in harmony, either by its form or physical properties, with the power and construction of the instrument employed. Thus the operator concludes with his trouble for his reward, the patient with the pains he has suffered, and science is marked by a failure." Preface, pp. xxii, xxiii.

Fortunate had it been, were these the only results that have occurred. There is much good sense displayed in this preface throughout, shown by many just reflexions, and candid confessions respecting lithotrity. The "introductory observations" which follow, and which, much in the usual stile of English works, occupy above forty pages, are of so general a nature and so superfluous, that they had better have been spared in a work which ought to have been exclusively practical to be useful. Our author treats his subject at some length, under the following heads.

First, The organs in which we are to operate.

Second, Of calculi; with regard to lithotrity; their symptoms, &c.

Third, The construction of the instruments calculated to destroy calculi; these are divided into lithotritic instruments properly so called, accessory instruments, destined to accomplish secondary indications, and those intended to support the patient, and to hold the lithotritic instruments during the operation.

Fourth, The circumstances which add to the success of the operation, or which may render it difficult, or altogether inadmissible.

Fifth, A description of the instruments, in relation with the urinary organs, and with calculi.

Lastly, Some unconnected observations, elucidations, &c.

Here we find a display of materials, which if properly handled could not fail to prove interesting. In order to present to the American reader a proper idea of lithotrity, that he may form correct opinions of its value or insufficiency, (and from the doubtful manner in which it is generally received, something definitive is now wanting,) let us in succession extract the substance presented in each of these divisions, not with a view to criticise, and still less in any spirit of undeserved approbation. A personal acquaintance with the author, leads us to believe, that he is to be depended upon in his statements and that he is every way calculated, as well by his assiduity as by his skill and general talents, to improve that branch of the science he has undertaken to investigate.

In the first division, or that respecting the organs upon which we operate, is included an interesting account of the canal of the urethra; with many practical illustrations, tending to show the conformity of this canal, with the use of straight instruments, and its ability to allow passage to the fragments of broken calculi. As regards this latter point, it sometimes becomes one of the strongest objections to the operation of lithotrity, and unless obviated will tend strongly to debar patients from submitting to it. It has been our lot to witness the severe suffering produced by the forcible extraction of such fragments of calculi; laceration of the lining membrane of the urethra, and sometimes severe hæmorrhage, attending such attempts.

The actual condition of the urethra, although it does not often become the greatest obstacle to the success of lithotrity, is not to be overlooked in our prognosis in individual cases, obstructions of various kinds, thickening, great irritability, natural smallness of diameter, &c. sometimes prevent even an attempt to break up a stone, and much discredit will be brought upon the operation, as well as upon the operator, if notwithstanding, attempts should be made in opposition to objections of so important a nature.

"The absolute size of the urethra in the adult, is from three and a half to four lines, and we can estimate its calibre by measuring the anterior part, with a cylinder."

For a more detailed history of the structure and various diameters of this canal, we must refer to the work itself, where also will be found an account of the effects produced by the introduction of straight instruments into the urethra.

The bladder is next treated of, and in a manner creditable to the author, and highly useful to the practitioner of lithotrity. Its relative position, its gradual change of form and enlargement from the introduction of a distending fluid, and more particularly the precise condition of the lower fundus and neck, are matters of the greatest importance when we come to introduce instruments in the living body, for the purpose of extracting extraneous substances. Nor is this point one of indifference to the lithotomist; how often is he foiled in his first attempts to catch a stone, even with all the advantage of a free and direct opening into the bladder! Let *him* also be guided by such considerations respecting this organ, that he may act from knowledge and principle, and not groping about in the dark, trust to chance for the discovery of a stone in the first place, and subsequently for its extraction to terminate an operation, all the preceding steps of which have been so scientifically conducted. The whole account, indeed of the bladder, as presented in this work in relation to lithotrity, will prove of much interest to those who are advocates for its employment, and not uninstructive to the lithotomist. Our author's position is entirely new, in relation to the effects of distention, upon the capacity of the lower fundus of the bladder, and he seems to have devoted a great deal of study to this point. After much general matter, upon the influence of surrounding agents, he says—

"From this it follows, that if during the violent contraction of the bladder, caused by the injection of a large quantity of water, the anterior part advances towards the sacrum, if the posterior part advances towards the neck, and if the fundus is contracted and raised, the bladder *instead of being enlarged by the injection of a large quantity of water*, as would be the case were it an inert pouch, *diminishes in capacity towards the inferior portion*. Now, as it is precisely in this part that the operation of lithotrity is performed, we can readily conceive how important the knowledge of this fact is." p. 82.

After some further illustrations, he observes—

"That *when the bladder is in a state of contraction, if we let some of the water which it contains flow out, it increases in size at its fundus*. This is as we see, in direct opposition to the generally received opinion." p. 84.

Again—

"The bladder assumes a different form, when it empties itself under the influence of the will, or under that of its organic contractions," &c. p. 84.

Now all this is explained as follows—

"In the upper part there is only the muscular coat, and even this is weaker at the apex than elsewhere; whilst in the lower portion, there exists not only the muscular coat, which is itself very much developed, but also powerful auxiliaries; it is not therefore surprising, that when these two halves of the organ are contending together, the weaker should yield to the stronger, and that that portion which presses least upon the liquid, should become distended notwithstanding its contraction. If we now consider the great dilatation which may take place in the upper part of the bladder, as is proved by the large collection of fluid in some cases of retention of urine, we shall come to the important conclusion, that *the bladder may receive a large quantity of fluid without being dilated at its lower part*." pp. 85, 86.

Next follow some remarks upon "*columnar bladders*," having prominent folds likely to be caught in the forceps and pouches, which may conceal a stone; to these succeed inquiries relative to the precise position of the calculus, depending upon its form and size. The sum of which is,

"First, That the more spherical a stone is, the more immediately it becomes placed before the neck of the bladder, and consequently, being in the axis of the instrument, is more easily seized."

"Secondly, That the smaller a round stone is, the easier it is seized, since its small size keeps it at a distance from the neck, and consequently it is at the spot where the branches are most expanded." p. 100.

These observations will suffice to give an idea of the views advanced respecting the "organs in which we operate." This appears to us the most valuable part of the work, and the facts, *if they are facts*, are likely to form a solid foundation for future investigations in lithotrity. The author shows a disposition to treat the subject scientifically, and to base all he advances as to the application of instruments upon these data. Such should always have been the case, as well with those who have hitherto advocated the operation, as with others who have condemned it.

In the second division we have observations upon urinary calculi, but of so general a nature, that we may pass them over without further comment, with one exception; an attempt is made to point out the difference between the symptoms of a round and of a flat nucleus, soon after its descent into the bladder, and further, even to determine its *actual composition* from the first. The particular symptoms, and the position of the stone in the bladder, constitute the means by which this valuable information is said to be obtained. The differences, and various phenomena tending to establish this theory are minutely detailed, but we must wait for further and more mature observation to determine their accuracy. Conclusions formed upon these data, are next drawn, and made to bear upon the application of the author's instruments, as calculated to seize and destroy a calculus of any form whatever; in conclusion, he observes—

> "Thus we see the physical properties of calculi require the instruments to be differently constructed, in order to arrive at the important object of effecting their comminution in as short a time as possible, with the least movements possible, and in the most gentle manner for the bladder." p. 156.

The "general considerations on the instruments," which form the third division, present us with fourteen "general rules to be attended to in the construction of these instruments."

> "These rules being given and established from an anatomical investigation of the organs, and from the study we have made on the physical properties of calculi, we shall be better able to appreciate the degree of perfection, to which we have carried the construction of each of the mechanical means now employed for destroying vesical calculi." pp. 162, 163.

These rules present us with all the desiderata to be obtained for the perfection of lithotrity; as might have been expected, our author's contrivancies are not altogether inadequate to supplying the wants of the fourteen rules.

In opposition to the plans hitherto proposed, the following statement is advanced in the form of a proposition.

> "To proceed as rapidly as possible in the destruction of vesical calculi, and at the same time with safety to the organ, it is absolutely necessary to have recourse to *lithotritic instruments differently combined.*" p. 170.

These combinations are four in number.

> "The first is the instrument which I have called '*perce-pierre,*' (stone-borer,) *or three branches with a simple drill;* this instrument is suitably constructed to destroy small round stones of five or six lines in diameter with facility, and pretty rapidly, but its action is merely to make a hole a little larger than the drill itself."
>
> "The second combination is my instrument, '*trois branches à virgule,*' (three branches with a comma;) its mechanism for seizing the stone is the same as in the preceding instrument, but as regards the act of destroying, it is capable of producing in a stone an excavation of ten lines, and that in one attack; this is effected by means of a small steel blade, which projects from the perforating drill, and resembles the typographical mark, called a comma. This instrument is well adapted to destroy spherical stones of ten or twelve lines in diameter, and oval stones of this dimension in their smallest diameter."
>
> "The third is my apparatus, '*évideur a forceps,*' (forceps excavator;) it is called '*évideur*' because it excavates spherical calculi of from fourteen to twenty-four lines in diameter; and '*a forceps*' because it grasps them in the same manner as an accoucheur does the head of an infant with his forceps. This instrument, from the disposition of its component parts, is well adapted to *seize and break round and very large calculi in contracted bladders.*"
>
> "Lastly. The fourth combination is my instrument, '*brise-coque,*' (shell-breaker,) so named from its being especially destined to crush the fragments resulting from the action of the excavators; these fragments, from their concave shape, resemble egg-shells." "The '*brise-coque*' adds to the power of commi-

nuting fragments, the still more important property of seizing and rapidly destroying flat calculi, which, from their shape, are unfavourable to the action of all the other instruments." pp. 170–2.

These four instruments are supposed adequate to meet the exigencies of any case, adapted to lithotrity, that may present itself. If the complicated nature of these is to constitute an objection to their introduction, for many reasons it will not be allowed to have much weight, *provided only*, they actually do accomplish the great end for which they were made. It is entirely useless to attempt to explain their mechanism, as this would require the aid of drawings, assisted by minute explanations, too extensive for this cursory notice.

Each of the instruments named, is now brought forward in order, and the motives for which it was constructed, explained; the particular construction of it, in all its parts, its mechanism, and its action upon calculi, are treated in a manner likely to extend the benefits of the inventor's skill, wherever his work may appear.

In respect to one instrument, we quote the following observation, which appears in the form of a note.

"I have lately discovered in the '*perce-pierre*,'' a property till now unobserved, which I have rendered efficient by introducing certain modifications in its construction, and by making some additions, which serve as accessory instruments, in order to develope and bring into action the property of which I am speaking; it consists in enabling the surgeon to break into fragments the shells of excavated stones, by communicating to them, through the medium of the drill, the shock of a hammer. This new mode of proceeding, which I have called *system of percussion*, I employed for the first time on a seaman, operated upon publicly at the Military Greenwich Hospital; and it constitutes, with the system of *excavating and crushing*, three different means of destroying vesical calculi. I intimated before, in the *examination of calculi*, how important this new method might subsequently become; at present I only point it out, and will give a more precise idea of it when I have studied it more deeply. With respect to the system of *repeated perforations*, I allow it to subsist in this work, although I banish it from my practice, as often as the stone is of sufficient size to require several perforations to be reduced to fragments." p. 175.

Since this note was written, the author has been induced to seek for other means of putting the system of percussion into practice, as we shall see hereafter.

The motive for which the "*évideur a forceps*" was constructed, is thus explained.

"Although the action of the *trois branches a forceps* is very energetic, since it can produce an excavation of ten lines in one attack, this instrument is not however sufficient to excavate calculi exceeding ten or twelve lines; for comparatively to the size of such calculi, it only makes a hole, and does not produce the important result of breaking them into fragments, or of reducing them sufficiently, to render this rupture easy." p. 198.

After the explanations, he says—

"Here terminates the action of the *évideur*, for it has accomplished what it was intended for, namely, *having reduced to powder the largest possible portion of the calculus, without coming once in contact with the parietes of the bladder*." p. 231.*** "When the stone is hard enough to remain entire, after being excavated, it remains in the forceps in the form of a shell, firmly maintained by the four flattened extremities terminating the branches; this shell is very thin, excepting at the posterior part, where it forms a sort of *dome*, and has been left according to the rules, of the thickness of a quartar of the stone's diameter; it is to break this dome, that is destined the *percuteur*." p. 232.

"The idea which we have already given, is sufficiently exact for enabling our readers to perceive the motives which induced us to construct this apparatus, and for rendering them competent to understand the details, which combine to form a system, by means of which we are able, *in one single attack, and by only once seizing the stone*, to do more towards restoring to health a patient having a large spherical calculus, than could be performed by the '*perce-pierre*' in a great number of long and painful operations." p. 233.

The "*perce-pierre*" being incompetent to seize and destroy the rough fragments left by the actions of the "*évideur*," and of the "*percuteur*," the "*brise-coque*" is next brought into operation.

"This end could only be obtained by means of a combination, which should be made to perform, as it were, at the same time, *the action of seizing and destroying with rapidity*. We have called this a system of crushing, and have discovered the means of accomplishing, with an instrument which we have named '*brise-coque*,' (shell-breaker,) all the data which were prescribed." p. 238.

"The system of crushing is applicable whenever the calculi or fragments assume a flattened shape, or, to speak more generally, whenever they present small diameters," &c. p. 239.

This instrument, consisting of only two powerful blades, which are protruded and withdrawn alternately, is capable of finding, seizing and destroying all *flat calculi*, a point of no small importance.

Respecting the "*accessory instruments*," which follow next in description, I shall notice only the *recto-curvilinear sound;* with this instrument, it is said, we can ascertain the *size, form, and situation* of a calculus, with great accuracy. How useful to the lithotomist will this prove, in detecting the presence of a stone, which the ordinary sound so often fails to discover.

"It is a silver sound, hollow, and from two lines to two lines and a half in diameter; the body of it is perfectly straight, and seven or eight inches in length; the curve, which commences at the extremity of the straight portion, is equivalent to the fourth part of the circumference of a circle, described with the radius of an inch and a half." p. 265.

It is so arranged, that with the aid of a proper syringe, the bladder can at any time be injected, without removing the sound.

If the preceding observations of our author prove the practicability of lithotrity, it is in the sixth division, that we meet with a check to the idea of its universal application; this is precisely what the ultimate success of this operation required. The sanguine hopes of inventors of new instruments, as of new theories, too often run into extremes, and therefore they are seldom brought to a rational bearing upon actual cases, until time and unbiassed observation have trimmed them of what was *useless or incorrect*. Of "those circumstances which may contribute to the success of the operation of lithotrity, render it difficult or altogether inadmissible." The *age of the patient* is the first to be enumerated. In the first place it is not recommended in young children, and then very old persons, with a loss of tone and power in the bladder, especially when it contains a large stone are not eligible cases. It is even stated that these circumstances constitute a direct prohibition to the operation.

"This want of power, in addition to the soft state of the coats of the urethra, and the varicose state of the neck of the bladder, which results from an organic change produced by age, and sometimes from the presence of calculi, renders the expulsion of the fragments tedious, difficult, and sometimes impossible." p. 311.

This want of power is sometimes shown by a great degree of debility throughout the whole body, the urine flows slowly as if falling by its own weight, and especially when a gum elastic catheter being introduced into a bladder containing urine, it is only expelled with very little power. This objection however does not apply if the stone be small. Any small fragments in such cases can be extracted, by means of a large catheter invented for the purpose. In respect to this instrument, it is stated—

"We have succeeded in discovering a combination, which is in our estimation, one of the most important we possess; since it enables us to restore to health many persons, and chiefly those advanced in years, on whom we should not otherwise perhaps venture to operate." p. 312.

In respect to old patients he finally observes—

"Thus we see that as regards the age of the patient, several important considerations arise respecting lithotrity. We see that although well adapted to cure the adult, it becomes more limited in its applications, the nearer the patient approaches to either extreme of life." p. 313.

The second cause of inadmissibility may arise from the *constitution* of the patient. Fat persons so objectionable in the operation of lithotomy are affirmed to be preferable for lithotrity, as the stone and its fragments are much easier caught than in those at all emaciated. *Organic disease* may frequently become an insuperable difficulty in this operation; an *unhealthy subject* having some vital organ diseased, which is likely to sympathize with the urinary organs, is objectionable. This circumstance has not always been properly attended to, as it would seem sometimes, to have been sufficient that the patient had a stone, and therefore could with propriety be subjected to lithotrity. It is improper in those who have a strong *calculous diathesis*, or a great disposition to form nephritic calculi, and in whose bladder there may already be a number of stones formed. Here should be noted also the fact that an inflammation is often communicated to the kidneys sympathetically, in consequence of a stimulus given to the bladder. As regards the *urethra*, the objections that may apply in this part, are obvious and numerous; an inability to receive straight instruments, from the firm ligamentous attachments of the penis to the pubes, and from the orifice in the bladder being very high up; an unusually small size of this canal; strictures whether accidental or morbid; stones having lodged in the urethra "especially when they have become imbedded in the canal." When the mucous membrane is soft and fungous. Lastly, cases in which the "urethra is so extremely sensitive, that the introduction of a gum elastic sound produces insupportable pain."

The *prostate gland*, not unfrequently interferes with lithotrity. For example, enlargements either of the lateral, or of the middle lobe, and sometimes a cul-de-sac exists in this gland, arresting the course of the instruments; lastly, sometimes from its great breadth, it impedes the operator in the free manipulation of his instruments. In conclusion, we find it stated that "not to be unjust, however, towards the prostate gland, I will here terminate by remarking that it is too often accused of producing difficulties which result from totally different causes."

The condition of the *bladder* is a matter of much importance, and from many circumstances may arrest the practitioner of lithotrity; these are columns, pouches, distinct lobes, &c. of these lobes there may be two or three—one communicating with the urethra, the other with this by a small opening, and so on; now, if a stone be lodged in the second or third sac, it would be impossible to catch it by instruments introduced through the urethra: bladders which are too small, or very much enlarged, or diseased, as for example, with a catarrhus vesicæ, or paralysis, are improper; it is advanced as a maxim, that "as lithotrity can only restore calculous patients when the fragments of the stone may be expelled by the action of the bladder, the contractile power of this organ ought to be ascertained before deciding upon the operation." Vesical polypi, a varicose state of the veins at the neck of the bladder, or a soft and fungous condition of the mucous membrane, do not absolutely prevent the operation, but are disadvantageous to it.

"Lastly, a great degree of organic derangement, whether in the bladder itself, or in the surrounding parts, may render lithotrity difficult, or forbid it altogether; for example, a malformation of the pelvis, an exostosis from the interior of this cavity, unnatural adhesions of the bladder, hydatids, an enlarged ovary, or pregnancy, may alter the form of the bladder, and impede the operation." p. 346–7.

After these, in conclusion, we find adduced a difficulty arising from a "great degree of contractility of the bladder."

"Sometimes it allows a moderate injection of water, but when introduced, the liquid is immediately expelled with great force, although an instrument has been used apparently of sufficient size to stop up the canal." "In other cases the water does not escape, but the instrument is instantaneously grasped, and can no longer be moved," &c. p. 347.

So much for the bladder: as regards the stone, this also requires some attention. The number, size, composition, particular form, &c. are here alluded to; but of these it is not necessary to speak more in detail.

Thus, we conclude this valuable portion of the work before us; the statements we have quoted give us much pleasure, as they indicate a disposition to discover what in reality is to be the amount of benefit to be derived from this new operation.

Of our author's newly-invented *rectangular bed*, we say nothing, as it would not be in our power to offer any satisfactory explanation of its mechanism. In the *concluding observations* it is observed, that—

"The only thing which has yet left me seriously to desire, is a combination better adapted to grasp and break up thick oval stones, than the three-branched instruments. These forceps do not answer well; a new construction is required, as I have already said, and I am at this moment actively engaged upon it." p. 354. "It is the system of *percussion* established on principles hitherto unknown," that is here alluded to.

Many cases are next brought forward to conclude the work, accompanied with a history of all the minute details which exemplify the utility and mode of action of the author's instruments.

In our extracts from this work we have endeavoured to present as correct and connected an account of all that was new or useful, as our limits would permit; and have been more copious upon some points than others, from a conviction of their utility to the profession generally. We are perhaps a little too partial to lithotrity; and may be thought to have taken, on that account, a favourable impression of a work—pretending to extend the application of instruments for destroying urinary calculi while yet in the bladder. We can only say, that if all the author advances be strictly true, (and we can have no reason to doubt the correctness of his details,) the extracts alone which have been selected will justify us in our favourable opinion.

J. P. H.

XVI. *Handbuch der Chirurgie zum Gebrauche bei Seinen Vorlesungen*, von Maximilian Joseph Chelius, Der Medicin und Chirurgie Doctor, Grossh. Bad. Geheimen Hofrathe, Ritter des Grossh. Bad. Zühringer Löwen-Ordens, ordentlichem öffentlichen Professor der Chirurgie, Director der Chirurgischen und Ophthalmologischen Klinik zu Heidelberg, und mehrer gelehrten Gesellschaften Mitgliede. 4 Bande, pp. 1786. Dritte, vermehrte und verbesserte, auflage. Heidelberg und Leipzig, 1828–1829.

A Manual of Surgery, for the Use of Students. By Maximilian Joseph Chelius, Doctor of Medicine and Surgery, Professor of Surgery, &c. &c. 4 vols. 1828–1829.

Few literary undertakings are more difficult to accomplish than an elementary class-book suited to all the wants of the student. Such a work must be sufficiently full to convey a clear and satisfactory view of the various subjects treated of, without running into prolixity. It must be concise and perspicuous, without being so meagre, in its details, as to exhibit an incomplete exposition of elementary principles. It must be systematic in the disposition of the topics of which it treats; perspicuous in style, lucid in argument and illustration, rich in facts, and fruitful in principles fairly established by the rules of rigid induction. These are requisites which it must be confessed are difficult to meet with, and if the numberless manuals which are daily obtruded upon the public attention, with the avowed object of supplying the wants of the student, were to be judged by this touchstone, few we fear would be permitted to pass the ordeal. These observations will apply with strict justice to most of the elementary treatises on surgery, which we regret to say are singularly defective in many of the particulars designated. We must, however, make an exception in favour of the manual of surgery of Professor Chelius, the title of which we have announced above. We are, indeed, not aware of having seen any elementary treatise better calculated to aid the student in the acquisition of the first principles of surgical science, and to enable him to follow the lectures of the professor with advantage.

The various diseases and accidents which fall to the province of the surgeon, are arranged, by Professor Chelius, under the following divisions: 1. Inflammation and its varieties. 2. Diseases which consist in a division of the natural connexions of the organization. 3. Diseases which arise from a preternatural adhesion of parts. 4. Foreign bodies. 5. Degenerations of the organism and adventitious developments. 6. A complete loss or destruction of some part of